Appl. No. 10/612,688
Amendt. dated April 6, 2005
Reply to Office Action of January 7, 2005

Amendment to the Specification

Please replace the paragraph that starts with the phrase "An alternative fuel cell...." on page 1, line 35 of the specification and that ends with the phrase "...or pores within porous layers." on page 2, line 26 of the specification, with the following amended paragraph.

An alternative fuel cell power plant is known that utilizes passive water management and reduced free water volume, wherein the coolant system includes a sealed cooler plate so that traditional antifreeze solutions may be utilized to cool fuel cells of the plant. Because the cooler plate is sealed, the antifreeze solution cannot pass out of the plate to poison fuel cell catalysts. As described in commonly owned U.S. Patent Application Serial No. 10/036,181, now United States Patent No. US 6,794,077 B2, entitled "Passive Water Management Fuel Cell", fuel cell product water may be removed from an operating fuel cell by water management flow fields defined adjacent to anode and cathode reactant flow fields. Such water management flow fields also serve to provide water for humidification of the reactant streams to prohibit drying out of the PEM electrolyte. The water flow fields also provide gaseous seals between cells of a well-known fuel cell stack assembly in the event a sealed cooler plate or solid separator plate is not disposed between each cell of the assembly. It is important that the water management flow fields not dry out, so that reactant streams may not pass out of fuel or oxidant flow fields into the

water management flow fields, so that reactant streams do not cross-over the water flow fields to mix together, and so that water is not evaporated out of a PEM electrolyte to humidify dry reactant streams thereby degrading the electrolyte performance. The water management flow fields may be defined as channels or pores within porous layers.